

IN THE CLAIMS:

Please amend the claims as follows:

1. (currently amended) A method for negotiation or re-negotiation of at least one a parameter ~~or parameters~~ for use in the operation of a protocol that controls data transmission between first ~~Communication Units (CUs)~~communication units and third ~~CUs~~communication units via second ~~CUs~~communication units,

where ~~thesaid~~ protocol is operated by protocol entities in ~~thesaid~~ first and third ~~CUs~~communication units,

where a first CUcommunication unit is always associated with a second CUcommunication unit at a time,

where a second CUcommunication unit is always associated with a third CUcommunication unit at a time, and

where there exist ~~second CUs of at least a first and second type and/or third CUs~~communication units of at least a first and second type that require different choices of said parameter,

characterised in that~~said~~ method comprising:

wherein when an existing association of ~~sa~~id first CUcommunication unit with a former second CUcommunication unit that was associated with a third communication unit of said first type is changed to an association of said first CUcommunication unit with a new second CUcommunication unit that is associated with a third communication unit of said second type,

said protocol entities of the~~said~~ first CUcommunication unit and protocol entities of ~~the~~said third CUcommunication unit of said second type associated with the new second CUexchange at least one negotiation message containing a value for said parameter, and

starting said exchange of said at least one negotiation message by transmitting, from a protocol entity of said first communication unit, a negotiation message containing

a value for said parameter to a protocol entity of said third communication unit of said second type.

2. (currently amended) A method according to claim 1,

characterised in that

the former second CU was associated with a third CU of a first type and the new second CU is associated with a third CU of a second type wherein in said exchange of said negotiation message, said protocol entity in said first communication unit performs the following:

a first checking whether said parameter is required for the operation of said protocol between said protocol entities of said first communication unit and said third communication unit of said second type, and

a second checking whether said parameter needs to be negotiated or re-negotiated,

wherein said transmitting, from said protocol entity of said first communication unit, said negotiation message containing a value for said parameter to said protocol entity of said third communication unit of said second type is only performed if said first and second checking produced positive results.

3. (canceled)

4. (currently amended) A method according to claim 32,

characterised in thatwherein in said exchange of at least one said negotiation message, the said protocol entity of the said third CU communication unit of said second type associated with the new second CU performs the following steps:

receiving the said negotiation message transmitted by the said protocol entity of the said first CU communication unit containing a value for said parameter, and

transmitting a negotiation message to the said protocol entity of the said first CU communication unit containing the said received value or a higher value for said parameter.

5. (currently amended) A method according to claim 1,
~~characterised in that~~wherein said first ~~CU~~communication unit is a ~~Mobile Station (MS)~~mobile station of a mobile radio system,
~~that~~wherein said second ~~CU~~communication units are ~~Base Transceiver Stations (BTSs)~~base transceiver stations, and
~~that~~wherein said third ~~CU~~communication units are ~~Mobile services Switching Centres (MSCs)~~mobile-services switching centres.

6. (currently amended) A method according to claim 5,
~~characterised in that~~wherein said third ~~CU~~communication unit of ~~the~~said first type is a ~~MSG~~mobile-services switching centre of a mobile network operated according to the ~~UMTS~~universal mobile telecommunications system standard or a derivative thereof (~~UMTS~~-MSC), and
~~that~~wherein said third ~~CU~~communication unit of ~~the~~said second type is a ~~MSG~~mobile-services switching centre of a mobile network operated according to the ~~GSM~~global system for mobile communications standard or a derivative thereof (~~GSM~~-MSC).

7. (currently amended) A method according to claim 5,
~~characterised in that~~wherein said protocol is a circuit switched, non-transparent single- and/or multi-link data protocol with ~~Automatic Repeat Request (ARQ)~~an automatic repeat request.

8. (currently amended) A method according to claim 7,
~~characterised in that~~wherein said protocol is ~~the~~a Radio Link Protocol (~~RLP~~)radio link protocol.

9. (currently amended) A method according to claim 7,
~~characterised in that~~wherein said parameter defines ~~the~~a value of a re-

sequencing timer that guards ~~thea~~ difference between the delays of frames transmitted on different physical links within a multi-link protocol.

10. (currently amended) A method according to claim 7₂,

~~characterised in that~~wherein said protocol is a circuit switched, non-transparent single- and/or multi-link data protocol with automatic repeat request, and

wherein said first step of checking whether said parameter is required for the operation of said protocol between the~~said~~ protocol entities of the MS and GSM-MSC
said first communication unit and said third communication unit of said second type
comprises the step of checking whether~~said~~ the data transmission between the MS
and the GSM-MSC~~said first communication unit and said third communication unit of~~
~~said second type~~ is a multi-link transmission or whether there is a possibility that~~thea~~
single-link transmission will be upgraded to a multi-link transmission later.

11. (currently amended) A method according to claim 10,

~~characterised in that~~wherein said second step of checking whether said parameter needs to be negotiated or re-negotiated comprises the step of checking whether a value for said re-sequencing timer was defined by~~thea~~ user of the~~MS~~said mobile station.

12. A method according to claim 1,

~~characterised in that~~

~~the former second CU is a second CU of a first type and the new second CU is a second CU of a second type for~~negotiation or re-negotiation of at least one parameter for use in the operation of a protocol that controls data transmission between first communication units and third communication units via second communication units,

where said protocol is operated by protocol entities in said first and third communication units, where a first communication unit is always associated with a second communication unit at a time,

where a second communication unit is always associated with a third

communication unit at a time, and

where there exist second communication units of at least a first and second type
that require different choices of said parameter,

said method comprising:

wherein when an existing association of said first communication unit with a
former second communication unit of said first type is changed to an association of said
first communication unit with a new second communication unit of said second type,
said protocol entities of said first communication unit and protocol entities of said third
communication unit associated with said new second communication unit exchange at
least one negotiation message containing a value for said parameter,

transmitting, in said exchange of said negotiation message, a negotiation
message containing a value for said parameter from said protocol entity of said third
communication unit associated with said new second communication unit to said
protocol entity of said first communication unit

wherein said value for said parameter depends on a transmission characteristic
of a transmission medium between said new second communication unit and its
associated third communication unit and

wherein said value can be determined by said third communication unit for each
of the second communication units it can be associated with.

13. (canceled)

14. (canceled)

15. (currently amended) A method according to claim 1312,

~~characterised in that in~~wherein said exchange of at least one said negotiation
message, thesaid protocol entity of thesaid first CUcommunication unit performs the
following steps:

~~receiving~~ thesaid negotiation message transmitted by thesaid protocol entity of
thesaid third CUcommunication unit that is associated with thesaid new second

GUcommunication unit and containing a value for said parameter, and transmitting a negotiation message to thesaid protocol entity of thesaid third GUcommunication unit that is associated with thesaid new second GUcommunication unit containing the same or a higher value for said parameter.

16. (currently amended) A method according to claim 12,
~~characterised in that~~wherein said first GUcommunication unit is a ~~Mobile Station (MS)~~mobile station of a mobile radio system,
~~that~~wherein said second GUcommunication units are ~~Base Transceiver Stations (BTSs)~~base transceiver stations, and
~~that~~wherein said third GUcommunication units are ~~Mobile services Switching Centres (MSCs)~~mobile-services switching centres.

17. (currently amended) A method according to claim 16,
~~characterised in that~~wherein one out of thesaid first and second types of said second GUcommunication unit is a ~~BTS~~base transceiver station that is connected to its associated ~~MSC~~mobile-services switching centre via a lower-delay network, and
~~that~~wherein the other type of said second GUcommunication unit is a ~~BTS~~base transceiver station that is connected to its associated ~~MSC~~mobile-services switching centre via a higher-delay network.

18. (currently amended) A method according to claim 17,
~~characterised in that~~wherein said lower-delay network is a ~~Time-Division Multiplex (TDM)~~time division multiplex network.

19. (currently amended) A method according to claim 17,
~~characterised in that~~wherein said higher-delay network is at least partially based on the ~~Internet Protocol (IP)~~internet protocol or a satellite connection.

20. (currently amended) A method according to claim 17,

~~characterised in that the MSC wherein said mobile-services switching centre~~
that is connected to its associated ~~BT\$base transceiver station~~ via a lower-delay
network is either operated according to the ~~UMTS~~universal mobile telecommunications
system standard, the ~~GSM~~global system for mobile communications standard or a
derivative thereof, and

~~that the MSC wherein said mobile-serves switching centre~~ that is connected to its
associated ~~BT\$base transceiver~~ via a higher-delay network is either operated according
to the ~~UMTS~~universal mobile telecommunications system standard, the ~~GSM~~global
system for mobile communications standard or a derivative thereof.

21. (currently amended) A method according to claim 12,

~~characterised in that~~wherein said protocol is a circuit switched, non-transparent
single- and/or multi-link data protocol with ~~Automatic Repeat Request (ARQ)~~automatic
repeat request.

22. (currently amended) A method according to claim 21,

~~characterised in that~~wherein said protocol is the ~~Radio Link Protocol (RLP)~~a
radio link protocol.

23. (currently amended) A method according to claim 21,

~~characterised in that~~wherein said parameter defines ~~the~~a value of an
acknowledgement timer that guards ~~the~~a re-transmission period after which ~~the~~s re-
transmission of a not-acknowledged frame within a protocol with ~~ARQ~~Automatic repeat
request may be started.

24. (currently amended) A method according to claim 21,

~~characterised in that~~wherein said parameter defines ~~the~~a value of a re-
sequencing timer that guards ~~the~~a difference between ~~the~~the delays of frames transmitted
on different physical links within a multi-link protocol.

25. (currently amended) A method according to claim 1412,
~~characterised in that~~wherein said transmission characteristic is related to ~~the~~a transmission delay.

26. (currently amended) A method for negotiation of ~~a~~at least one parameter or parameters for use in the operation of a protocol that controls data transmission between first ~~Communication Units (CUs)~~ communication units and third ~~CUs~~communication units via second ~~CUs~~communication units,

where ~~the~~said protocol is operated by protocol entities in ~~the~~said first and third ~~CUs~~communication units,

where a first ~~CU~~communication unit is always associated with a second ~~CU~~communication unit at a time,

where a second ~~CU~~communication unit is always associated with a third ~~CU~~communication unit at a time, and

where there exist second ~~CUs~~ of ~~at least a first and second type and/or third~~ at least a first and second type and ~~CUs~~communication units of at least a first and second type that require different choices of said parameter,

~~characterised in that~~said method comprising:

wherein in the case that it is possible that an association of said first ~~CU~~communication unit with a second ~~CU~~communication unit that is associated with a third ~~CU~~communication unit of ~~a~~said first type may be changed to an association of said first ~~CU~~communication unit with a second ~~CU~~communication unit that is associated with a third ~~CU~~communication unit of ~~a~~said second type, and

said protocol entities of said first ~~CU~~communication unit and said protocol entities of said third ~~CU~~communication unit of ~~the~~said first type perform the step of exchanging at least one negotiation message containing a value for said parameter prior to said change of associations.

27. (currently amended) A method according to claim 26,
~~characterised in that~~wherein in said exchange of at least one exchanging said

negotiation message, thesaid protocol entities in thesaid first CUcommunication unit or thesaid third CUcommunication unit of thesaid first type perform the following steps:

 checking whether it is possible that said data transmission between thesaid first CUcommunication unit and thesaid third CUcommunication unit of thesaid second type is a multi-link data transmission that requires thea definition of a re-sequencing timer as said parameter for said protocol, and

 checking whether a value for said re-sequencing timer is available as a basis for negotiation.

28. (currently amended) A computer program product comprising software code portions directly loadable into the internal computer readable memory of a digital computer, comprising software code portions said software code portions when run on a computer for performing the stepsactions of claim 31 when said product is run on a computer.

29. (currently amended) A system comprising first communication units, second communication units and third communication units, wherein the system is for data transmission between said first Communication Units (CUs) communication units of said system and said third CUscommunication units of said system via said second CUscommunication units of said system,

 where thea protocol that controls said data transmission is operated by protocol entities in thesaid first and third CUscommunication units,

 where a first CUcommunication unit is always associated with a second CUcommunication unit at a time,

 where a second CUcommunication unit is always associated with a third CUcommunication unit at a time, and

 where there exist second CUs of at least a first and second type and/or third CUscommunication units of at least a first and second type that require different choices of at least one parameter for use in the operation of said protocol,

characterised in thatwherein when an existing association of said first

CUcommunication unit with a former second CUcommunication unit that was associated with a third communication unit of said first type is changed to an association of said first CUcommunication unit with a new second CUcommunication unit,

 said protocol entities of thesaid first CUcommunication unit and protocol entities of thesaid third CUcommunication unit of said second type associated with the new second CU exchange at least one negotiation message containing a value for said parameter,

wherein said exchange of said at least one negotiation message is started by said first communication unit by transmitting, from a protocol entity of said first communication unit, a negotiation message containing a value for said parameter to a protocol entity of said third communication unit of said second type.

30. (currently amended) A system comprising first communication units, second communication units and third communication units, wherein the system is for data transmission between said first Communication Units (Cus) communication units of said system and said third Guscommunication units of said system via said second Guscommunication units of said system,

 where thea protocol that controls said data transmission is operated by protocol entities in thesaid first and third Guscommunication units,

 where a first CUcommunication unit is always associated with a second CUcommunication unit at a time,

 where a second CUcommunication unit is always associated with a third CUcommunication unit at a time, and

 where there exist second Cus of at least a first and second type and/or third Cuscommunication units of at least a first and second type that require different choices of at least one parameter for use in the operation of said protocol,

characterised in thatwherein in the case that it is possible that an association of said a first CUcommunication unit with a second CUcommunication unit that is associated with a third CUcommunication unit of asaid first type may be changed to an

association of said first GUcommunication unit with a second GUcommunication unit that is associated with a third GUcommunication unit of asaid second type,

 said protocol entities of said first GUcommunication unit and said protocol entities of said third GUcommunication unit of thesaid first type perform the step of exchanging at least one negotiation message containing a value for said parameter prior to said change of associations.

31. (new) A first communication unit in a system for data transmission between first communication units of said system and third communication units of said system via second communication units of said system,

 where a protocol that controls said data transmission is operated by protocol entities in said first and third communication units,

 where a first communication unit is always associated with a second communication unit at a time,

 where a second communication unit is always associated with a third communication unit at a time, and

 where there exist third communication units of at least a first and second type that require different choices of at least one parameter for use in the operation of said protocol,

 said first communication unit comprising:

 a processor arranged for starting, in case an existing association of said first communication unit with a former second communication unit that was associated with a third communication unit of said first type is changed to an association of said first communication unit with a new second communication unit that is associated with a third communication unit of said second type, an initiative for an exchange of at least one negotiation message containing a value for said parameter between protocol entities of said first communication unit and protocol entities of said third communication unit of said second type by transmitting, from a protocol entity of said first communication unit, a negotiation message containing a value for said parameter to a protocol entity of said third communication unit of said second type.

32. (new) A third communication unit in a system for data transmission between first communication units of said system and third communication units of said system via second communication units of said system,

where a protocol that controls said data transmission is operated by protocol entities in said first and third communication units,

where a first communication unit is always associated with a second communication unit at a time,

where a second communication unit is always associated with a third communication unit at a time,

where there exist third communication units of at least a first and second type that require different choices of at least one parameter for use in the operation of said protocol,

wherein said third communication unit is a third communication unit of said second type and comprises:

a processor arranged for exchanging, in case an existing association of a first communication unit with a former second communication unit that was associated with a third communication unit of said first type is changed to an association of said first communication unit with a new second communication unit that is associated with said third communication unit of said second type, at least one negotiation message containing a value for said parameter between protocol entities of said first communication unit and protocol entities of said third communication unit of said second type, wherein said exchange of said at least one negotiation message is started by said first communication unit by transmitting, from a protocol entity of said first communication unit, a negotiation message containing a value for said parameter to a protocol entity of said third communication unit of said second type.

33. (new) A system comprising first communication units, second communication units and third communication units, wherein the system is for data transmission between said first communication units of said system and said third communication units of said

system via said second communication units of said system,

where a protocol that controls said data transmission is operated by protocol entities in said first and third communication units,

where a first communication unit is always associated with a second communication unit at a time,

where a second communication unit is always associated with a third communication unit at a time, and

where there exist second communication units of at least a first and second type that require different choices of said parameter,

wherein when an existing association of a first communication unit with a former second communication unit of said first type is changed to an association of said first communication unit with a new second communication unit of said second type, said protocol entities of said first communication unit and protocol entities of a third communication unit associated with said new second communication unit exchange at least one negotiation message containing a value for said parameter,

wherein in said exchange of said negotiation message, said protocol entity of said third communication unit associated with said new second communication unit performs the step of transmitting a negotiation message containing a value for said parameter to said protocol entity of said first communication unit,

wherein said value for said parameter depends on a transmission characteristic of a transmission medium between said new second communication unit and its associated third communication unit and that said value can be determined by said third communication unit for each of the second communication units it can be associated with.

34. (new) A first communication unit in a system for data transmission between first communication units of said system and third communication units of said system via second communication units of said system,

where a protocol that controls said data transmission is operated by protocol entities in said first and third communication units,

where a first communication unit is always associated with a second communication unit at a time,

where a second communication unit is always associated with a third communication unit at a time, and

where there exist second communication units of at least a first and second type that require different choices of said parameter,

said first communication unit comprising:

a processor arranged for exchanging, in case that an existing association of said first communication unit with a former second communication unit of said first type is changed to an association of said first communication unit with a new second communication unit of said second type, at least one negotiation message containing a value for said parameter between protocol entities of said first communication unit and protocol entities of a third communication unit associated with said new second communication unit,

wherein in said exchange of said negotiation message, said protocol entity of said third communication unit associated with said new second communication unit performs the step of transmitting a negotiation message containing a value for said parameter to said protocol entity of said first communication unit, and

wherein said value for said parameter depends on a transmission characteristic of a transmission medium between said new second communication unit and its associated third communication unit and that said value can be determined by said third communication unit for each of the second communication units it can be associated with.

35. (new) A third communication unit in a system for data transmission between first communication units of said system and third communication units of said system via second communication units of said system,

where a protocol that controls said data transmission is operated by protocol entities in said first and third communication units,

where a first communication unit is always associated with a second

communication unit at a time,

where a second communication unit is always associated with a third communication unit at a time, and

where there exist second communication units of at least a first and second type that require different choices of said parameter,

said third communication unit comprising:

a processor arranged for exchanging, in case an existing association of a first communication unit with a former second communication unit of said first type is changed to an association of said first communication unit with a new second communication unit of said second type that is associated with said third communication unit, at least one negotiation message containing a value for said parameter between protocol entities of said first communication unit and protocol entities of said third communication unit,

wherein in said exchange of said negotiation message, said protocol entity of said third communication unit associated with said new second communication unit performs the step of transmitting a negotiation message containing a value for said parameter to said protocol entity of said first communication unit, wherein said value for said parameter depends on a transmission characteristic of a transmission medium between said new second communication unit and its associated third communication unit and that said value can be determined by said third communication unit for each of the second communication units it can be associated with.

36. (new) A first communication unit in a system for data transmission between first communication units of said system and third communication units of said system via second communication units of said system,

where a protocol that controls said data transmission is operated by protocol entities in said first and third communication units,

where a first communication unit is always associated with a second communication unit at a time,

where a second communication unit is always associated with a third

communication unit at a time, and

where there exist third communication units of at least a first and second type that require different choices of at least one parameter for use in the operation of said protocol,

said first communication unit comprising:

a processor arranged for exchanging, in case that it is possible that an association of said first communication unit with a second communication unit that is associated with a third communication unit of said first type may be changed to an association of said first communication unit with a second communication unit that is associated with a third communication unit of said second type, at least one negotiation message, which contains a value for said parameter, between said protocol entities of said first communication unit and said protocol entities of said third communication unit prior to said change of associations.

37. (new) A third communication unit in a system for data transmission between first communication units of said system and third communication units of said system via second communication units of said system,

where a protocol that controls said data transmission is operated by protocol entities in said first and third communication units,

where a first communication unit is always associated with a second communication unit at a time,

where a second communication unit is always associated with a third communication unit at a time, and

where there exist third communication units of at least a first and second type that require different choices of at least one parameter for use in the operation of said protocol,

wherein said third communication unit is a third communication unit of said first type and comprises:

a processor arranged for exchanging, in case that it is possible that an association of a first communication unit with a second communication unit that is

associated with said third communication unit may be changed to an association of said first communication unit with a second communication unit that is associated with a third communication unit of said second type, at least one negotiation message, which contains a value for said parameter, between said protocol entities of said first communication unit and said protocol entities of said third communication unit prior to said change of associations.